IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
KENNETH PERLIN	)	
	)	
Serial No. 09/718,008	)	
	)	
Filed: November 21, 2000	)	METHOD AND APPARATUS
	)	FOR NOISE
Art Unit: 2628	)	
	)	
Patent Examiner:	)	
	)	
Jin Cheng Wang	)	

Pittsburgh, Pennsylvania 15213

October 24, 2011

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

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10/24/11
Date

Ansel M. Schwartz
Registration No. 30,587

AMENDMENT UNDER RULE 312

In response to the Office Action dated February 2, 2011, please amend the above-identified patent application as follows.

Amendments to the Specification

Please replace the Abstract of the Disclosure to the following Abstract of the Disclosure.

A method for creating an appearance of texture in a computer image having the steps of introducing information into a computer from which the image is produced for each point of the image in 3D geometric space. There is the step of computing a pseudo-random hash value at each vertex of a unit cube surrounding the point of the image using six + modules and seven L modules where the L module is implement as a look-up table having 64 6 bits entries. There is the step of mapping the lower six bits from last stage L modules of a plurality of stages of modules to a fixed set of 64 gradient vectors where the set is chosen such that a length of each component of every vector of the 64 vectors is a power of two. There is the step of based on the gradient vectors, combining with the computer the contribution from each vertex into a single interpolated result to produce the point of the image with noise interpolated texture that do not have visible grid artifacts. There is the step of after all points of the image are obtained, displaying the image on a display.

Claim Amendments

Claims 1-13 (canceled)

Claim 14 (previously presented): The method of Claim 17 wherein the producing step includes the step of producing the images with texture in real time.

Claim 15 (previously presented): The method of Claim 17 wherein the producing step includes the step of producing the images with texture based on pseudo-fractal sum.

Claim 16 (previously presented): The method of Claim 17 wherein the producing step includes the step of producing the images with texture based on a sine function.

Claim 17 (previously presented): A method for creating an appearance of texture in a computer image comprising the steps of:

introducing information into a computer from which the image is produced;

for each point of the image in 3D geometric space:

computing a pseudo-random hash value at each vertex of a unit cube surrounding the point of the image using six + modules and seven L modules where the L module is implement as a look-up table having 64 6 bits entries;

mapping the lower six bits from last stage L modules of a plurality of stages of modules to a fixed set of 64 gradient vectors where the set is chosen such that a length of each component of every vector of the 64 vectors is a power of two;

based on the gradient vectors, combining with the computer the contribution from each vertex into a single interpolated result to produce the point of the image with noise interpolated texture that do not have visible grid artifacts; and

after all points of the image are obtained, displaying the image on a display.

REMARKS

Claims 14-17 are currently active.

The Abstract of the Disclosure has been shortened to less than 150 words. No new matter has been entered.

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Respectfully submitted,

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